

IN THE CLAIMS

1. (currently amended) A self-centering ball-and-socket joint, comprising:
 - (a) a spherical pin (01), with a first end ~~rotably~~ coupled to first (03) and second (02) bearings ,
 - (b) said first end comprised of first (09) and second (10) hemispheres, said first hemisphere (09) having a larger diameter than said second hemisphere (10),
 - (c) said first (03) and second (02) bearings being mounted inside a case (04), said case (04) having a connection system,
 - (d) said spherical pin (01), having a second end extending out of said case (04), said second end having a connection system.
2. (original) The joint of claim 1, wherein said first end of said spherical pin (01) interacts with said bearing assembly (02, 03) to restrict motion in a first pre-determined direction, and to allow free rotary motion in a second pre-determined direction.
3. (original) The joint of claim 1, wherein said first hemisphere (09) is coupled with said first bearing (03), said first bearing (03) having an arcuate shape, and said second hemisphere (10) being coupled with said second bearing (02).

4. (original) The joint of claim 1, wherein restricted angular movement of said second end of said shear pin (01) occurs as a result of the said second bearing (02) interaction with said second hemisphere (10), said second bearing (02) being comprised of an elastic material.
5. (original) The joint of claim 1, wherein the said second bearing (02) includes holes (11), adjacent to a lower sealing cover (05).
6. (original) The joint of claim 5, wherein said holes (11) decrease in depth from said second bearing's (02) outer circumference, to said second bearing's (11) centerline.
7. (original) The joint of claim 5, wherein said lower bearing (02) creates a spring effect that urges said spherical pin (01) back to a predetermined position.
8. (original) The joint of claim 1, wherein said first hemisphere (09), and said second hemisphere (10) form a single unitary part, created from a single piece of material.

9. (currently amended) A self-centering ball-and-socket joint used in connecting parts requiring restricted angular movement, said joint comprising:

- (a) a spherical pin (01) with a first end disposed within a bearing assembly (02, 03) said bearing assembly (02, 03) being disposed within an outer case (04); and
- (b) said bearing assembly (02, 03) comprising first (03) and second (02) bearings; and
- (c) said first (03) and said second (02) bearings being comprised of elastomeric material;
- (d) said first end of said spherical pin (01) further comprising first hemisphere (09) and second body portion (10) integrally formed as a unitary member ~~hemispheres~~, said first hemisphere (09) having a larger diameter than said second ~~hemisphere~~ body portion (10); and
- (e) said first hemisphere (09) and second body portion (10) ~~hemispheres~~ respectively disposed within said first (03) and second (02) bearings; and
- (f) said first hemisphere (09) directly contacting said elastomeric first bearing (03), and said second ~~hemisphere~~ body portion (10) directly contacting said elastomeric second bearing (02); and
- (g) said second (02) bearings contacting a flat portion of said first hemisphere (09), and said second bearing contacting an arcuate portion of said second ~~hemispheres~~ body portion (10) such that said spherical pin (01) is continuously urged to return to a pre-determined position;
- (h) a sealing cover (05) directly contacting said second bearing (02), said sealing cover (05) sealing said outer case (04).

10. (new) The joint of claim 10, wherein said second bearing (02) includes a plurality of elongated holes generally extending parallel to an axis defined by a pin portion of said spherical pin (01) to assist the second bearing (02) in counteracting lateral forces applied to the spherical pin (01).

11. (new) The joint of claim 10, wherein said second body portion (10) defines a semi-spherical body, a majority of said second body portion (10) having an external curved surface of constant radius.

12. (new) The joint of claim 10, wherein said first bearing (03) partially overlaps said second bearing (02).

13. (new) The joint of claim 10, wherein said second bearing (02) defines a substantially cup-shaped member conforming to a shape defined by said first hemisphere (09) and said second body portion (10), said first hemisphere (09) and said second body portion (10) coming to rest against said cup-shaped member.

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14. (new) The joint of claim 1, wherein said second hemisphere (10) defines a semi-spherical body, a majority of said second hemisphere (10) having an external curved surface of constant radius.

15. (new) The joint of claim 1, wherein said first bearing (03) partially overlaps said second bearing (02).

16. (new) The joint of claim 1, wherein said second bearing (02) includes a plurality of elongated holes generally extending parallel to an axis defined by a pin portion of said spherical pin (01) to assist the second bearing (02) in counteracting lateral forces applied to the spherical pin (01).

17. (new) The joint of claim 10, wherein said second bearing (02) defines a substantially cup-shaped member conforming to a shape defined by said first and second hemispheres (09, 10), said first and second hemispheres (09, 10) coming to rest against said cup-shaped member.